SUBJECT INDEX

Acoustoelasticity, p. 58
Acoustic emission, pp. 326, 606
Aluminum composite laminates, p. 1065
Aluminum/Graphite, p. 108
Aluminum matrix, p. 1021
Angle interlock geometry, p. 890
Amine/Epoxy, p. 163
Axial oscillation, p. 92
Biaxial Loading, p. 988
Bimodal formulation, p. 367
Blister formation, p. 389
Boron/aluminum, p. 1009
Branching theory model, p. 174
Brittle fracture, p. 448
Buckling and bending behavior, pp. 651, 862
Buckling of laminated plates, p. 536
Buckling load, maximum, p. 348
Carbon/bismaleimide, p. 1216
Carbon/carbon 3D materials, pp. 988, 997
Carbon/Epoxy, pp. 32, 92, 133, 570, 1216
Carbon Fiber/Epoxy, p. 570
Carbon/PEEK, p. 133
Center Notch flexural test, p. 756
Ceramic matrix composites, p. 308
Chemorheology, p. 163
Chevron notch, p. 77
Circular holes under static load, p. 536
Closed failure surfaces, p. 216
Coefficient of thermal expansion, p. 370
Composite pins, p. 798
Composites, particulate, p. 326
Composites, short fiber, p. 32
Composite strength, p. 208
Compression failures, p. 479
Continuum damage mechanics, p. 326
Crack growth resistance, p. 77
Crack length, p. 846
Cracked Lap Shear (CLS), p. 146
Crashworthy design, p. 448
Critical stress intensity, p. 846
Cross-ply cracking, p. 944
Cross-ply cylindrical shells, p. 673
Cross-ply fiber reinforcement, p. 1216
Cross-ply laminates, pp. 264, 651, 695, 1106
Cyclic delamination, p. 133
Cylindrical shells composite, p. 11
Damage accumulation, p. 570
Damping factor, p. 978
Delamination, p. 1200
Diffusion coefficient, p. 795
Dynamic stress-strain, p. 288
Elastic moduli, p. 819
Electro-rheological (ER) fluids, p. 1232
Energy Absorption, pp. 448, 1216
Failure modes, pp. 308, 317, 344, 389 862, 1089, 1256
Failure criterion, cubic, p. 208
Fatigue crack propagation, pp. 406, 735
Fatigue creep, p. 912
Fiber bridging, p. 389
Fiber composites, p. 1009
Fiber, Nickel coated, p. 32
Fiber Orientation Control, p. 32
Fiber reinforced composites, pp. 32, 370, 434, 505, 798, 923, 961, 1021
Fiber reinforced PEEK, p. 434
Fiberite T300/976, pp. 134, 1130, 1159
Fibrous laminated composites, p. 1273
Filament wound tubes, p. 288
Finite element analysis, pp. 42, 554
Flywheel composite, p. 2
Fracture, mixed mode, p. 1082
Fracture properties, pp. 309, 798, 846 1031, 1106
Fracture strain, transverse, p. 944
Fracture toughness, pp. 77, 434, 443, 923
FRP plastic response, p. 232
Glass/Epoxy composite, pp. 396, 695 735, 798
Glass fiber composites, p. 978
Goodness-of-fit test, p. 1065
Graphite-Epoxy, pp. 202, 208, 253, 264, 337, 448, 642, 695, 756, 819, 912, 923, 944, 1009, 1200
Graphite/epoxy laminates, p. 1082
Graphite/epoxy notched composites, p. 554

SUBJECT INDEX

Acoustoelasticity, p. 58
Acoustic emission, pp. 326, 606
Aluminum composite laminates, p. 1065
Aluminum/Graphite, p. 108
Aluminum matrix, p. 1021
Angle interlock geometry, p. 890
Amine/Epoxy, p. 163
Axial oscillation, p. 92
Biaxial Loading, p. 988
Bimodal formulation, p. 367
Blister formation, p. 389
Boron/aluminum, p. 1009
Branching theory model, p. 174
Brittle fracture, p. 448
Buckling and bending behavior, pp. 651, 862
Buckling of laminated plates, p. 536
Buckling load, maximum, p. 348
Carbon/bismaleimide, p. 1216
Carbon/carbon 3D materials, pp. 988, 997
Carbon/Epoxy, pp. 32, 92, 133, 570, 1216
Carbon Fiber/Epoxy, p. 570
Carbon/PEEK, p. 133
Center Notch flexural test, p. 756
Ceramic matrix composites, p. 308
Chemorheology, p. 163
Chevron notch, p. 77
Circular holes under static load, p. 536
Closed failure surfaces, p. 216
Coefficient of thermal expansion, p. 370
Composite pins, p. 798
Composites, particulate, p. 326
Composites, short fiber, p. 32
Composite strength, p. 208
Compression failures, p. 479
Continuum damage mechanics, p. 326
Crack growth resistance, p. 77
Crack length, p. 846
Cracked Lap Shear (CLS), p. 146
Crashworthy design, p. 448
Critical stress intensity, p. 846
Cross-ply cracking, p. 944
Cross-ply cylindrical shells, p. 673
Cross-ply fiber reinforcement, p. 1216
Cross-ply laminates, pp. 264, 651, 695, 1106
Cyclic delamination, p. 133
Cylindrical shells composite, p. 11
Damage accumulation, p. 570
Damping factor, p. 978
Delamination, p. 1200
Diffusion coefficient, p. 795
Dynamic stress-strain, p. 288
Elastic moduli, p. 819
Electro-rheological (ER) fluids, p. 1232
Energy Absorption, pp. 448, 1216
Failure modes, pp. 308, 317, 344, 389 862, 1089, 1256
Failure criterion, cubic, p. 208
Fatigue crack propagation, pp. 406, 735
Fatigue creep, p. 912
Fiber bridging, p. 389
Fiber composites, p. 1009
Fiber, Nickel coated, p. 32
Fiber Orientation Control, p. 32
Fiber reinforced composites, pp. 32, 370, 434, 505, 798, 923, 961, 1021
Fiber reinforced PEEK, p. 434
Fiberite T300/976, pp. 134, 1130, 1159
Fibrous laminated composites, p. 1273
Filament wound tubes, p. 288
Finite element analysis, pp. 42, 554
Flywheel composite, p. 2
Fracture, mixed mode, p. 1082
Fracture properties, pp. 309, 798, 846 1031, 1106
Fracture strain, transverse, p. 944
Fracture toughness, pp. 77, 434, 443, 923
FRP plastic response, p. 232
Glass/Epoxy composite, pp. 396, 695 735, 798
Glass fiber composites, p. 978
Goodness-of-fit test, p. 1065
Graphite-Epoxy, pp. 202, 208, 253, 264, 337, 448, 642, 695, 756, 819, 912, 923, 944, 1009, 1200
Graphite/epoxy laminates, p. 1082
Graphite/epoxy notched composites, p. 554

Graphite/epoxy resins, p. 606
Graphite fiber reinforcing, pp. 370, 961, 1021
Graphite/PEEK, p. 756
Graphite/Polymer Composites, pp. 389, 787
Graphite/Thermoplastic, p. 479
Graphite/Aluminum, p. 58
GRP angle ply tubes, p. 288
Homotomy solution method, p. 348
Hygrothermal environment, p. 819
Intelligent composite materials, p. 1232
Interfacial crack, p. 460
Interlaminar fracture, pp. 396, 756, 1216
Interlaminar shear strain, pp. 251, 264
Iosipescu shear testing, p. 988
Kinetic modeling, p. 167
LAMB wave concept, p. 195
Laminated plates, pp. 348, 1149
Laminated composites, p. 1159
Laminated orthotropic composites, p. 1256
Laminates, unidirectional, p. 1130
Loading, out-of-plane, p. 11
Marine environment, pp. 389, 787
Material damping measurement, p. 92
Matrix failure criterion, p. 247
Matrix fracture, pp. 944, 1029
Mechanical properties, p. 108
Metal matrix, pp. 108, 961
Metallic insert, p. 642
Microcracking, p. 1106
Micromechanics, pp. 264, 1130
Moisture absorption, pp. 434, 787
Molding stress calculation, p. 587
Monte Carlo simulation, p. 1256
Near-net-shape preforms, p. 798
Nonlinear bimodulus model, p. 988
Nonlinearity, pp. 254, 1130, 1159
Notch sensitivity, p. 846
Notched strength, pp. 337, 997
Open hole laminates, p. 479
Orthotropic photoelasticity, p. 42
Orthotropic solids, p. 460
Paris equation, pp. 389, 735
Particulate composites, pp. 108, 326
PEEK polymer, p. 434
Plasticity model, p. 1010
Plate wave propagation, p. 505
Ply-slip deformation, p. 587
Polynomial, tensor, p. 208
Polymer composites, p. 846
Postbuckled delaminations, p. 714
Prediction of physical properties, p. 1145
Property degradation model, p. 16
Rail shear, p. 264
Reflection photoelasticity, p. 42
Reinforced hole, p. 337
Resin mechanical properties, p. 923
Rheology, p. 163
Scaling analysis, p. 673
Sensitivity analysis, p. 370
Shear interlaminar, pp. 251, 264
Shear crippling, p. 479
Shear failure mechanism, pp. 257, 536
Shear lag analysis, p. 695
Spatial strength variation, p. 1256
Squeeze casting, pp. 961, 1021
Statistical size effect, p. 1256
Steel coupled composites, p. 389
Stiffness degradation, pp. 326, 695, 1029, 1273
Stiffness matrix, p. 348
Strain energy release, pp. 460, 714, 862
Strain rate effects, p. 288
Strength of composites, pp. 280, 977, 1088
Stress concentrations, p. 280
Stress relaxation, p. 554
Stress-strain relationships, pp. 1136, 1159
Tensile failure theory, p. 281
Tensile fracture toughness, p. 1216
Tensile strength, p. 1065
Tension test, off axis, p. 1012
Textile structures, p. 890
Three dimensional modelling, pp. 862, 890
Thermal curing cycles, p. 1048
Thermal curing cycles, p. 1048
Thermal expansion coefficient, p. 944
Thermal shrinkage, p. 570
Thermal stresses, p. 1106
Thermoset filamentary composites, p. 570
Thermoset matrix, pp. 133, 1048, 1130
Thermoplastic matrix, pp. 133, 434, 587
Thermo-Viscoelastic Behaviour, p. 554
TiB_2/SiC Matrix, p. 77
Tie rod model, p. 151
Time dependent behavior, pp. 554, 1159
Transverse cracking, pp. 570, 695, 735

Transverse shear, pp. 606, 651, 673
Transversely Isotropic Materials, p. 505
Unidirectional composite, pp. 58, 134, 308, 370, 400, 1021, 1130
Unnotched laminates, p. 912
Viscoelastic, pp. 235, 1166
Viscoplastic, p. 1168
Viscosity modeling, p. 173
Wave propagation, p. 95

AUTHOR INDEX

Abu-Arija, K. R., p. 673
Al-Hussani, S. T. S., p. 288
Allen, D. H., p. 1273
Al-Salehi, F. A. R., p. 288
Amateau, M. F., pp. 961, 1021
Andersen, S. I., p. 944
Antonelli, R. A., p. 42
Bandyopadhyay, S., p. 1216
Bhagat, R. B., pp. 961, 1021
Binienda, W. K., p. 570
Boniface, L., p. 735
Bowels, D. E., p. 370
Bradley, W. L., pp. 479, 923
Brown, R., p. 389
Castellani, A., p. 978
Chang, Fu-K., p. 11
Chatterjee, S. N., p. 58
Chaudhari, R. A., p. 673
Chen, J. L., p. 1009
Chisholm, J. M., p. 961
Choi, S. B., p. 1232
Chou, R. C. T., p. 570
Chou, Tsu-Wei, p. 890
Conway, J. C., Jr., p. 961
Craig, J. I., p. 448
Crema, L. B., p. 978
Dai, F. L., p. 264
DeCharentenay, F. X., p. 912
Deodatis, G., p. 1256
Dharani, L. R., p. 307
Dharmarajan, N., p. 846
Doroudian, M. M., p. 505
Dror, Y., p. 42
Freire, J. L. F., p. 42
Gandhi, M. V., pp. 819, 1232
Gao, Q., p. 988
Gellert, E. P., p. 1216
Gillespie, J. W., Jr., p. 756
Gregorian, J. C., p. 2
Gu, Z., pp. 988, 997
Gustafson, C.-G., p. 146
Gutowski, T. G., p. 587
Guynn, E. Gail, p. 479
Ha, S. K., pp. 1130, 1159
Haftka, R. T., p. 348
Han, K. S., p. 396
Hanagud, S., p. 448
Harris, C. E., p. 1273
Hatta, H., p. 32
He, G., p. 280
Hinton, M. J., p. 288
Hjellming, L. N., p. 1048
Hojo, M., p. 146
Holm, D., p. 146
Hong, C. S., p. 695
Hsiao, C. P., p. 505
Hwang, J. H., p. 554
Hwang, W., p. 396
Ifju, P., p. 264
Jenkin, M. G., p. 77
Jiang, Z., p. 208
Jordan, W. M., p. 923
Kline, R. A., p. 505
Ko, F. K., p. 287
Kuo, C.-C., p. 536
Kutlu, Z., p. 11
Lee, C. Y., p. 819
Lee, J. H., p. 337
Lee, J. R., p. 912
Lee, J.-W., p. 1273
Lim, S. G., p. 695
Lin, C.-C., p. 536
Lin, C. H., p. 92
Lin, K. Y., p. 554
Malkan, S. R., p. 787
Mall, S., pp. 133, 337
Maikuma, H., p. 756
Manoharan, M. G., p. 460
Mei, C., p. 606
Meng, L., p. 997
Mijovic, J., p. 163
Mouiton, R. J., p. 923

Murayama, K., p. 32
Nairn, J. A., p. 1106
Neal, D., p. 1256
Newaz, G. M., pp. 133, 326
Nilsson, S., p. 642
Noiret, D., p. 195
Nuismer, R. J., p. 1029
Ogin, S. L., p. 735
Ott, J. D., p. 163
Pandey, R. K., p. 108
Pardoen, G. C., p. 1200
Parnell, J. M., p. 961
Paulick, J. M., p. 961
Penn, L. S., p. 570
Peters, P. W. M., p. 944
Pfeifer, M., p. 819
Pillai, U. T. S., p. 108
Plaut, R. H., p. 348
Plunkett, R., p. 92
Post, D., p. 264
Prasad, C. B., p. 606
Roget, J., p. 195
Salem, J. A., p. 77
Sample, R. J., p. 1021
Seidensticker, D. G., p. 961
Serra, A., p. 978
Seshadri, S. G., p. 77
Shin, Y. S., p. 348
Shinozuka, M., p. 1256
Shivakumar, K. N., p. 714
Shuart, M. J., p. 251
Silva, V. M., p. 1216
Springer, G., pp. 434, 1130, 1159
Sriram, P., p. 448
Sugano, T., p. 32
Sun, C. T., pp. 460, 1009
Surrel, Y., p. 232
Tam, A. S., p. 587
Tan, S. C., pp. 1029, 1082
Tang, H., p. 307
Tennyson, R. C., p. 208
Thompson, B. S., pp. 819, 1232
Tompkins, S. S., p. 370
Tracey, J. J., p. 1200
Tucker, W. C., p. 389
Underwood, J. H., p. 1216
Vautrin, A., p. 232
Vipulanandan, C., p. 846
Voloshin, S., p. 42
Walker, J. S., p. 1048
Walsh, W. J., p. 326
Wang, A. S. D., p. 570
Wang, Q., p. 434
Watson, L. T., p. 348
Whitcomb, J. D., pp. 714, 862
Whitney, J. M., p. 756
Whitney, T. J., p. 890
Wu, H. F., p. 1065
Yamashita, S., p. 32
Yang, I-Horng, p. 657
Zhang, W., p. 988
Zheng, Z., p. 280
Zhou, B., p. 280
Zhou, W., p. 448
Zhu, Y., p. 280